REGISTRATION FORM
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☐ Cash RM_____

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(non-refundable) and made payable to "**THE INSTITUTION OF ENGINEERS, MALAYSIA**"
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Terms & Conditions:

- For ONLINE REGISTRATIONS, only ONLINE PAYMENT is applicable [via Credit Card]
- Payment via CASH / CHEQUE / BANK-IN TRANSMISSION / BANK DRAFT / MONEY ORDER / POSTAL ORDER / LO / WALK -IN will be considered as NORMAL REGISTRATION
- For online registrations, please note that **payment MUST be made before the closing date** at the latest.
- If payment is not received and verified within the stipulated time, the registration fee will be reverted to the normal registration fee.
- **FULL PAYMENT** must be settled before commencement of the course, otherwise participants will not be allowed to enter the hall. If a place is reserved and the intended participants fail to attend the course, the fee is to be settled in full. If the participant failed to attend the course, the fee paid is non refundable. Registration fee includes lecture notes, refreshment and lunches.
- The Organizing Committee reserves the right to cancel, alter, or change the program due to unforeseen circumstances. Every effort will be made to inform the registered participants of any changes. In view of the limited places available, intending participants are advised to send their registrations as early as possible so as to avoid disappointment.

ONE DAY SEMINAR ON PILE FOUNDATION - TESTING METHODS AND BEST PRACTICE

12 March 2015 (Thursday)
8.30 am – 5.00 pm
Tan Sri Prof. Chin Fung Kee Auditorium, 3rd Floor, Wisma IEM
No. 21, Jalan Selangor, 46200 Petaling Jaya,
Selangor Darul Ehsan

REGISTRATION FEES

Grade	Normal Fee	Online Fee
MGS Member	RM 400.00	RM 350.00
IEM Student Member	RM 150.00	RM 100.00
IEM Graduate Member	RM 300.00	RM 250.00
IEM Corporate Member	RM 400.00	RM 350.00
Non IEM / MGS Member	RM 600.00	RM 550.00

Closing Date: 26 February 2015

BEM Approved CPD/PDP Hours: 6.5
Ref. No.: IEM15/HQ/037/S

Jointly-Organised by
Malaysian Geotechnical Society (MGS) and
Geotechnical Engineering Technical Division,
The Institution of Engineers, Malaysia

Important Note: IEM members are required to produce their membership cards for CPD scanning at the start and end of the course.

INTRODUCTION

Piling works are required for almost all the construction projects in Malaysia. To verify that the pile can serve its intended functions, pile load testing is required. This practice has been in place since the start of the piling works. With the ever increasing construction activities in built-up city environment, it is good for the industry to constantly look at our current practice and observe good practice of the testing to ensure safety of pile design but also to ensure its effectiveness. This seminar will highlight good practice of pile load testing that will ensure its relevancy for future pile work in Malaysia. Professors, piling specialists, testing experts and regulators will share their knowledge in this area. The practicing engineers and public are welcome to share their view in this area during the forum session.

SEMINAR CONTENT

1.) Rapid Load Test - from Theory to Practices in Singapore by Prof. Chew Soon Hoe

Pile foundation needs to be ascertained on its bearing capacity and its settlement behavior. This presentation will introduce a new method of pile testing – Rapid Pile load test - which was accepted in ASTM Standard in 2008, as well as Australian and Japanese National Standard. This method employs a very innovative concept of using enhanced acceleration on a small mass to achieve a large force via Newton Law. Hence, a testing load of 100% can be achieved by a mass of 5% (of test load) that was subjected to an acceleration of 20g. The test set-up is fast and easy, and the testing duration is short. This presentation will present the theory, as well as a number of case studies in Singapore. The piles were typical piles designed and installed in various soil profiles commonly encountered in Singapore. Correlation tests with conventional static test were conducted and excellent comparison between the static test results and the Rapid Load Tests results were obtained.

2.) Load Testing using Kentledge and Reaction Pile Method by Er. Foo Hee Kang

The bored cast in situ pile foundation are extensively adopted in Singapore to support various structures like MRT, bridge, factories, Commercial and residential building. With the building getting taller and bigger, the load on foundation piles also get heavier. In view of the complexity of the soil condition in Singapore, it is difficult to predict the behavior of foundation piles with accuracy, even with the use of sophisticated analysis. The actual performance of foundation pile is best verified by performing load test. The presentation will illustrates the experience of large pile load test using Kentledge (up to 5,700 ton) and Reaction system (up to 7,600 ton) in term of safe design, quality control and productively aspects.

3.) Bi-Directional Load Testing Method by Er. Chandrasegaran

Conventional ultimate pile load test methods with kentledge and reaction piles methods are reliable but require lots of preparation in terms of transporting and handling large number of concrete blocks safely or installing additional piles as reaction piles. Bi-directional testing is one of the methods that provides alternative to the conventional testing methods and is more environment friendly and can be used in certain geological conditions successfully. It has been in use for more than 2 decades now. The talk will cover the theory behind the method, installation procedure and review some of the case histories, which had mixed results and discuss both advantages and disadvantages in deploying the method of testing.

4.) Pile Instrumentation Techniques for Driven, Jacked-In and Bored Cast-In-Place Piles by Ir. Dr. Lee Sieng Kai

The common use of conventional sacrificial cast-in strain gauges and sleeved rod tell-tales method is generally limited to bored pile application. An innovative instrumentation and analysis technique, called Glostrext method has also been used widely, providing an improved and practical way for ease of instrumentation application for various load tests methods on driven, jacked-in and bored cast-in-place piles. Key aspects of instrumented load tests and recent case histories will be discussed, including pros and cons on various pile instrumentation techniques and interpretations.

5.) Non-Destructive Tests on Bored Piles - Dynamic Load Tests (PDA), Low Strain Integrity Testing (PIT) and Sonic Logging by Engr. Chong Mun Fai

The trend today is construction of buildings and infra structures in buildup areas. These requires high carrying capacity non displacement piles to be installed. Due to limited site space, non-destructive testing on these piles has become a common tool to establish the quality of the installed piles. Low Strain Integrity Testing (PIT) and Sonic Logging is a good tool for establishing the integrity of the installed piles. Dynamic Load Test (PDA) is utilized to confirm that the installed piles is able to sustain the design capacity and also integrity.

BIODATA OF SPEAKERS

1.) Prof. Chew Soon Hoe, a Professional Engineer, graduated from the University of California at Berkeley, USA. He is currently an Assistant Professor with the Department of Civil and Environmental Engineering, National University of Singapore. His research interests include geosynthetics, soil improvement, slope engineering, land reclamation, deep excavation in soft soils, geo-environmental engineering and geological engineering. He has conducted research on pile testing using innovative method since 1998. He has published some papers on Statnamic Pile Testing as well as the vibration effect of this new method. He was awarded "Defense Technology Prize", from Ministry of Defense, Singapore in 2006. His research on the innovative use of cement mixed soil in Geotube for Pasir Panjang Port Extension work also won him the "Ministry of Transportation – Minister's Innovation Award (excellent) prize", 2011. He was awarded with the "Friends of Waters" award in 2013 by PUB. He is a council member of the Institution of Engineers, Singapore, IES (2006-2013 and 2013-2015).

2.) Er. Foo Hee Kang, Managing Director, Resource Piling Pte. Ltd., Singapore. A Keller Group Company, Resource Piling Pte. Ltd. was founded by him 21 years ago. He obtained his B.Eng (Civil) from University of Singapore in 1978. He is a Senior Member of Institute of Engineer, Singapore and a registered PE (Civil) Singapore. He is an active member of GeoSS and was awarded GeoSS Outstanding Geotechnical Entrepreneur in 2012.

3.) Er. Chandrasegaran, a registered PE in Singapore and PE (Geo) in Singapore and Malaysia. He has more than 25 years of design and construction experience in both major building developments as well as underground infrastructure in the region in the role of both consulting engineer as well as a specialist subcontractor. Chandrasegaran is currently Regional Design Manager with Bachy Soletanche Singapore Pte Ltd covering the region that includes Singapore, Malaysia, Indonesia, Brunei and Australia. His major area of expertise is in the deep excavation, deep foundations and ground improvement. He is a committee member of GeoSS (2014-2015).

4.) Ir. Dr. Lee Sieng Kai has more than 23 years of experience in the field of geotechnical engineering and pile test instrumentation technologies. He obtained his Bachelor's Degree in Civil Engineering from University of Malaya in 1990, and was conferred PhD in Foundation Engineering in 2011 by the same University. His research has been awarded with three GOLD medals in the national and international innovation competitions. He is a Professional Engineer registered with Board of Engineers, Malaysia and a Corporate Member of the Institute of Engineers, Malaysia. Presently, he is the managing director of Glostrext Technology Sdn. Bhd. and Glostrext Technology (S) Pte. Ltd.

5.) Engr. Chong Mun Fai is a graduate from Monash University Melbourne, Australia. He has been involved in the foundation testing industry since 1989. During the years he attended numerous PDA Users Days in Malaysia, Singapore, Thailand, Indonesia, Hong Kong and also USA where in-depth training of High Strain Dynamic Load Testing and also interpretation. He was also a committee member of the Geotechnical division of IEM in the session of 2005/2006. He was also in the organizing committee of The 7th International Conference on the Application of Stresswave Theory and also published a paper there. At present he is the Managing Director of Dynamic Pile Testing Sdn Bhd which he set up in 1994. Most of the work are in Malaysia but the services of DPT has spread to countries like New Zealand, Australia, Guam, Philippines, Papua New Guinea, Taiwan, Singapore and the middle east like Saudi, UAE and Yemen.

6.) Dr. H. M. Aziz is a Deputy Director of Air Base and Maritime Branch, JKR. He has served in JKR since 1983. He obtained his PhD from Northwestern University, Evanston, Illinois, USA. Dr. Aziz will be one of the Panelist in The Forum.

PROGRAMME

8.30am	**-**	**8.45am**	**Registration**
8.45am	**-**	**9.00am**	**Opening Address**
9.00am	**-**	**10.15am**	**Rapid Load Test – from Theory to Practices in Singapore by Prof. Chew Soon Hoe (NUS)**
10.15am	**-**	**10.30am**	**Coffee/Tea Break**
10.30am	**-**	**11.30pm**	**Load Testing using Kentledge and Reaction Pile Method by Er. Foo Hee Kang (Resource Piling (M) Sdn. Bhd.)**
11.30am	**-**	**12.30pm**	**Bi-Directional Load Testing Method by Er. Chandrasegaran (BSG Construction (M) Sdn. Bhd.)**
12.30pm	**-**	**1.30pm**	**Lunch**
1.30pm	**-**	**2.30pm**	**Pile Instrumentation Techniques for Driven, Jacked-In, and Bored Cast In-Place Piles by Ir. Dr. Lee Sieng Kai (Glostrext Technology (M) Sdn. Bhd.)**
2.30pm	**-**	**3.30pm**	**Non-Destructive Tests on Bored Piles - Dynamic Load Tests (PDA), Low Strain Integrity Testing (PIT) and Sonic Logging by Engr. Chong Mun Fai (Dynamic Pile Testing Sdn. Bhd.)**
3.30pm	**-**	**3.45pm**	**Coffee/Tea Break**
3.45pm	**-**	**5.00pm**	**Forum on "Will Maintained Load Tests Be Eventually Replaced by Faster and More Economical Testing Methods?"**
5.00pm			**Closure**